# Welcome to DataThief

## What is DataThief III

DataThief III is a program to extract (reverse engineer) data points from a graph. Typically, you scan a graph from a publication, load it into DataThief, and save the resulting coordinates, so you can use them in calculations or graphs that include your own data.

## What is new in DataThief III?

- It is written in Java, it runs on Windows, Unix, Macos...
- It is capable of tracing any more or less continuous line, even when the line crosses itself.
- It can convert data from numeric format to any other format, for instance dates.
- It is shareware. If you use DataThief, please buy the shareware registration key from KAGI .

## Changes in DataThief III version 1.6

Added fine motion.
To move a point it is now possible to locate the mouse pointer over the point so the pointer will turn to a crosshair.
Now you can move the point using the arrow keys on your keyboard.
When you zoom in, the motion will be even more precise.

## Changes in DataThief III version 1.5

The bug that was introduced in version 1.4 was repaired.

## Changes in DataThief III version 1.4

There was another bug in the formatting of numbers. The number 1.0001 was formatted as 1.0E-4.
It is fixed in version 1.4. (Thanks to Stephen Schwarz). Regretfully the fix introduced another bug. (See version 1.5)

## Changes in DataThief III version 1.3

Made it possible to enter the key using copy and paste

## Changes in DataThief III version 1.2

There was a serious bug in the previous versions of DataThief.
Under certain circumstances negative numbers in scientific notation were respresented as positive (ouch)!
This has been repaired in version 1.2. (Thanks to Meritt Reynolds).

## What is new in DataThief III version 1.1?

It is now impossible to move point to the top or the left out of the screen.
If you have lost your reference locators, you can use the reset menu item to move all locators to their default positions.

## Screenshots

View Screen shots of various platforms

## Download and installation

Installation is slightly different for various platforms (and for various browsers):
But on all platforms you will need a Java Runtime Environment (JRE).

### FireFox and Mozilla users

To download Datathief.jar, point to the Datathief.jar link in the section for your operating system, use the right mouse button and select "Save link as..."

### MacOS 8 and MacOS 9

The only JRE for MacOS 8 and MacOS 9 I know of is MRJ, which can be downloaded from

http://www.apple.com/support/
Search for MRJ in downloads. You will need MRJ 2.2.5 (Not MRJ 2.2.6).

If you are using MRJ, you need to download

DataThiefIII.sit

It contains an application that calls MRJ.

If you are using another JRE, download

Datathief.jar

and use whatever method your JRE requires to start a **jar** file

### Windows

You can download a JRE from http://java.sun.com

Once you have a JRE, you download Datahief.jar, but take care that the file is saved as Datathief.jar; my windows (XP) offers to save the file as Datathief.zip.

Datathief.jar

You can start DataThief by double clicking Datathief.jar

### MacOS X

MacOS X users, please note the known problems. I hope to find a solution for this problem, but right now You will have to use the work around (sorry for that).

As far as I know, MacOS X comes with a JRE preinstalled. If not, you can download it from the Apple site

Download

Datathief.jar

You can start DataThief by double clicking Datathief.jar

### Linux, Unix

Linux and Unix users, download a JRE from the Java site or from any other suitable location.

Download

Datathief.jar

and

Datathief

Take care they are both in the same directory and
`chmod +x Datathief`

## MD5sum

The MD5sum for Datathief.jar is:
**a393627291896ad40ab1c7395b33a3ab Datathief.jar**

The MD5sum for DataThiefIII.sit is:
**1474023fd533444825802375 3a53b2eb DataThiefIII.sit**

## The manual

Even though the aim has been to create an easy to use tool, DataThief III has many possibilities that are hard to understand without the manual. So we urge you to download it.

DatathiefManual.pdf

## Examples

The graphs that are used as examples in the manual are

### The first example

example.jpg

### Translators example with sunrise

sunrise.png

There is a small problem with the sunrise example.
The `toDate()` and `fromDate()` functions use the Locale setting of your Java installation.
In plain English: the names of the months will be used according to your (Java) system's language settings.

This means that if you follow the sunrise example in the manual, you will have to give the abbreviated month names accordingly. For example, in a German system you have to give the Ref3 x-coordinate a value of `31-dez` in stead of `31-dec`.

### Error bars

bars.jpg

### The date translator code

date.dtc

## Known problems

### Out of memory

I you get an error message explaining that the program quits due to a "OutOfMemoryError", this usually means that the image you are using is too big. Try reducing the dimensions of the image.

### Problem with MacOS X image load

There is one known problem which I have as yet been unable to solve: On (some versions of) MacOS X, when you load an image, it is not automatiaclly displayed. Zooming in and out, or any other way to refresh the screen will do the trick. I shall try to solve the problem, but it seems a tricky little item of what my software does with how Java is implemented for MacOS X.

**Problem with Windows download**

Some Windows installations offer to save the Datathief.jar file as Datathief.zip. Do not accept this; java requires the file to have the 'jar' extension.

## Trouble shooting

If you have problems starting Datathief.jar, the following might help:

The jar file contains a MANIFEST. The class that contains the main method is Datathief. So a basic command would be

```
java -classpath Datathief.jar Datathief
```

Or you might try

```
java -jar Datathief.jar
```

## Older versions of DataThief

The latest (and last) version of DataThief II (version 1.2.1) written for only the Macintosh platform is
here (not compressed 600 kByte)

## Citation

If you want to cite DataThief you can use:

> *B. Tummers, DataThief III. 2006 <http://datathief.org/>*